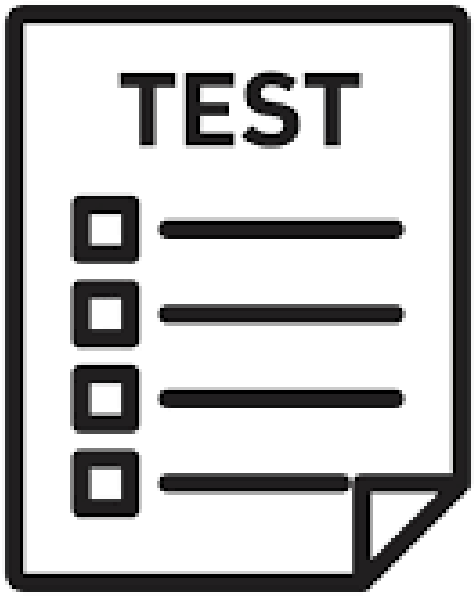
# Hydro-TestView User Guide

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| To re-order quote part number: | HD1198 |
| Revision: | 1.0.0 |
| Revision date: | October 2025 |

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## CUSTOMER RESPONSIBILITY

The customer in applying the product described in this documentation accepts that the product is a programmable electronic system which is inherently complex, and which may not be completely free of errors. In doing so the customer therefore undertakes responsibility to ensure that the product is properly installed commissioned operated and maintained by competent and suitably trained persons and in accordance with any instructions or safety precautions made available or good engineering practice and to thoroughly verify the use of the product in the particular application.

## ERRORS IN DOCUMENTATION

The product described in this documentation is subject to continuous development and improvement. All information of a technical nature and particulars of the product and its use including the information and particulars contained in this documentation are given by Hydronix in good faith.

Hydronix welcomes comments and suggestions relating to the product and this documentation.

## ACKNOWLEDGEMENTS



## CUSTOMER FEEDBACK

Hydronix is continually looking to improve not only its products but also the services that we offer to our customers. If you have any suggestions about how we can do this or if you have any other feedback that would be helpful, please complete our short form at www.hydronix.com/contact/hydronix_feedback.php.

If your feedback is concerning an Atex certified product or associated service, it would be helpful for you to give us your contact details and the model number and serial number of the product if possible. This will enable us to contact you with any relevant safety advice should this be necessary. It is not obligatory to leave your contact details, and any information will be treated as confidential.

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## *Revision history*

| **Revision No** | **Date** | **Description of Change (this row should automatically be bold)** |
|---|---|---|
| 1.0.0 | Oct 2025 | First Release |
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# Table of Contents

# *Table of Figures (heading not contents)*

# 1 Introduction

This guide describes how to install and use a Hydro-TestView diagnostics test box (HVT01) with the Hydro-TestView Software (HS0131) for Windows PCs to evaluate the hardware functionality of a sensor and provide diagnostics reports to Hydronix.

# 2 Software Installation

The Hydro-TestView software can be downloaded free of charge from the Hydronix Website at http://www.hydronix.com

The utility installation file is an executable file (.exe). Once downloaded, the software can be installed by double clicking on the file.

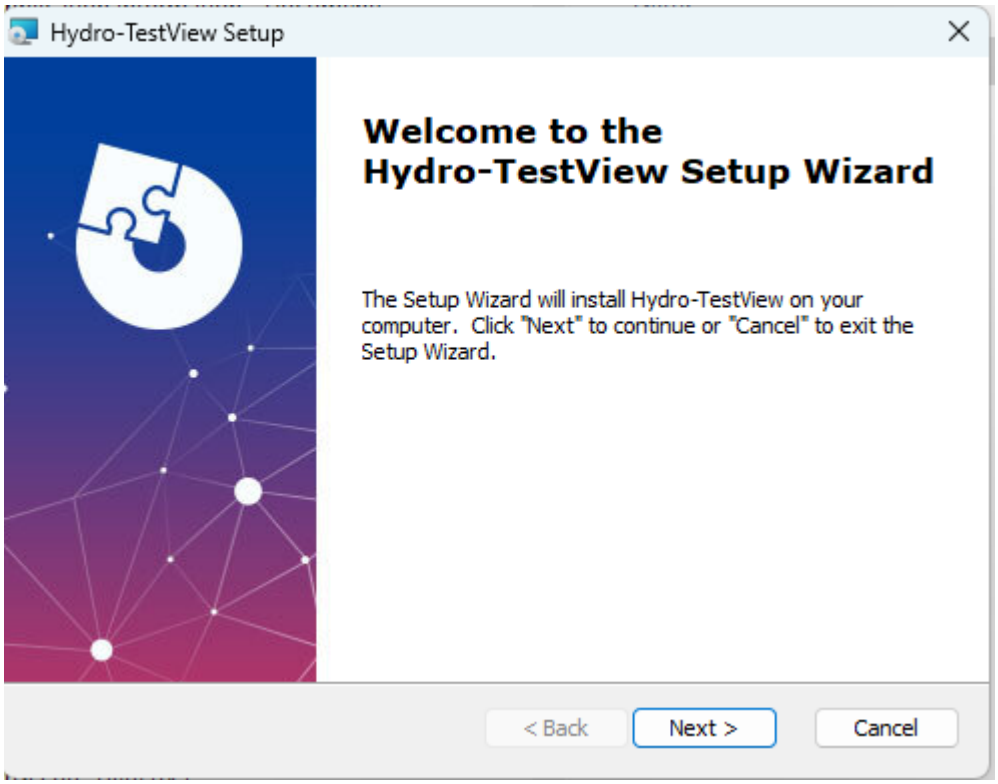


**Figure 1 - Hydro-TestView Installer**

Press 'Next' and make choices on program icons and installation locations, and then proceed to install the software.

The software can be found in the start menu by typing "HydroTestView".

# 3 Test box Driver Installation

## 3.1 Automatic Installation

If the PC has access to automatic driver updates, then plugging in the test box will initiate driver installation. For manual installation, the Hydro-TestView Test box drivers can be downloaded from www.hydronix.com.

## 3.2 Manual Installation

If the PC does not have access to automatic updates the drivers (HS0132) can be downloaded from the Hydronix website. These should be unzipped to an accessible drive.

Open ‘Device Manager’ on the Windows PC and locate the devices. Use the Add/Remove Hardware Wizard to install each device (there will be four serial converters).

## 3.3 Checking the Hardware Installation

If correctly installed, four USB Serial Converters will appear in ‘Universal bus controllers’. The ‘USB OK’ light on the test box will be illuminated.

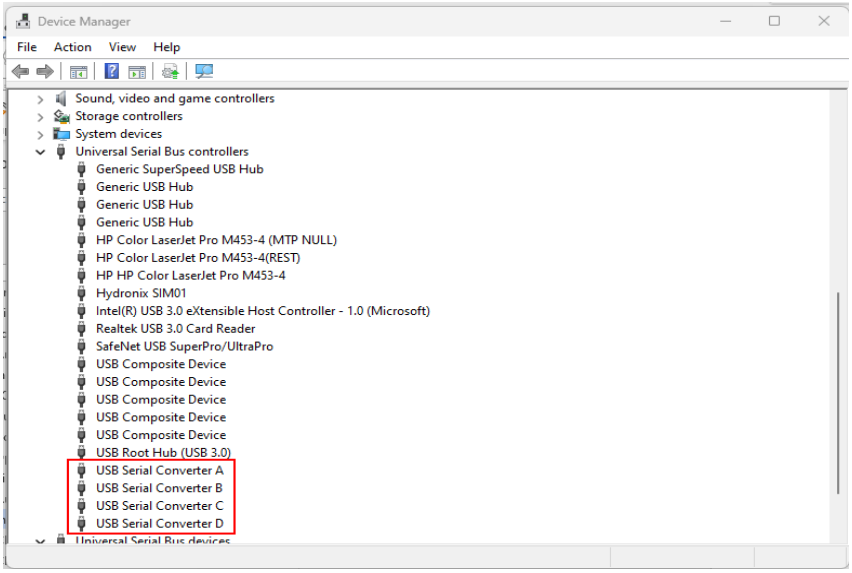


**Figure 2 - Hydro-TestView Test Box Drivers Installed**

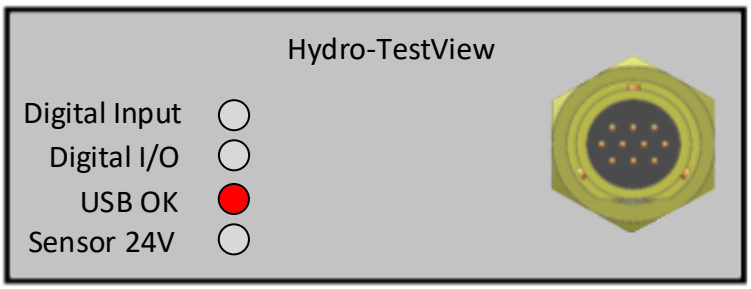


**Figure 3 - Hydro-TestView Box with Drivers installed (no 24VDC)**

# 4 Connecting the equipment

The test box should be connected to a Windows PC that has access to the internet, 24VDC power and the sensor to evaluate as shown in Figure 4.

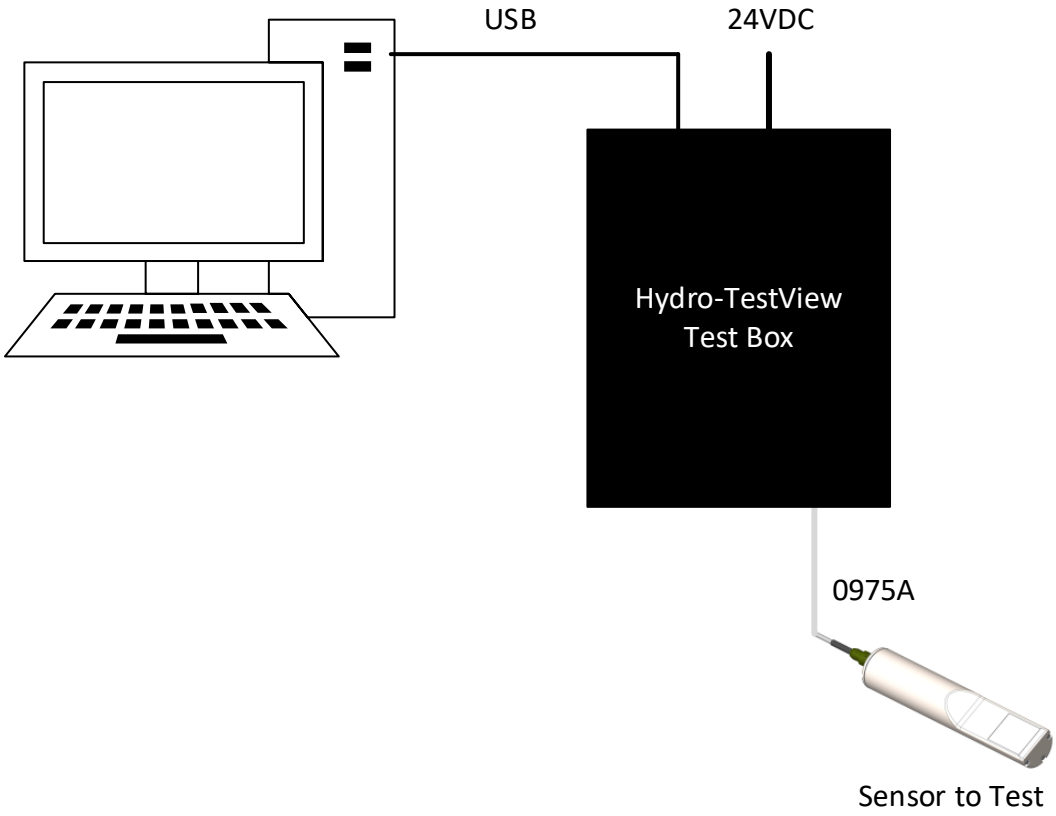


**Figure 4 - System Overview**

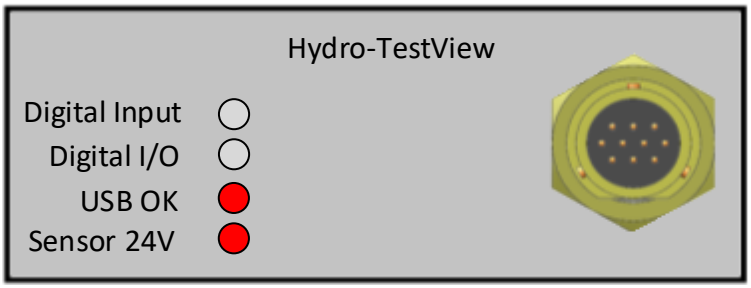


**Figure 5 - Hydro-TestView Test Box with 24VDC Power**

# 1 Automatic Test

Ensure the Hydro-View Test box is connected to the PC, 24VDC power is applied and the Test box is connected to the sensor to test. Start the Hydro-TestView software. Ensure The text box lights are as shown in Figure 6 and the status bar at the bottom left of the software says “HydroTestView Test Box has been found and initialised” (Figure 7).

If it states it has failed unplug the test box, reinstall the drivers, reboot and restart the Hydro-TestView software. If problems persist contact support@hydronix.com.

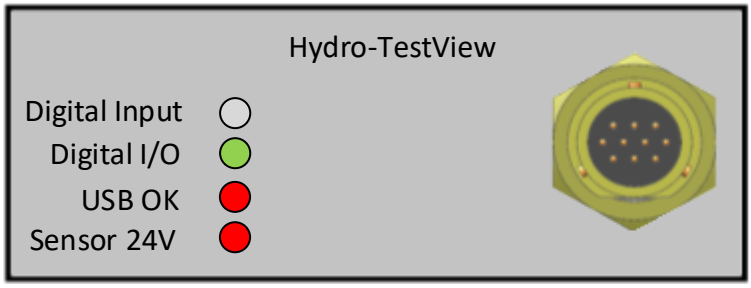


**Figure 6 - Initialised Hydro-TestView box**

Press the “Test Sensor” button.

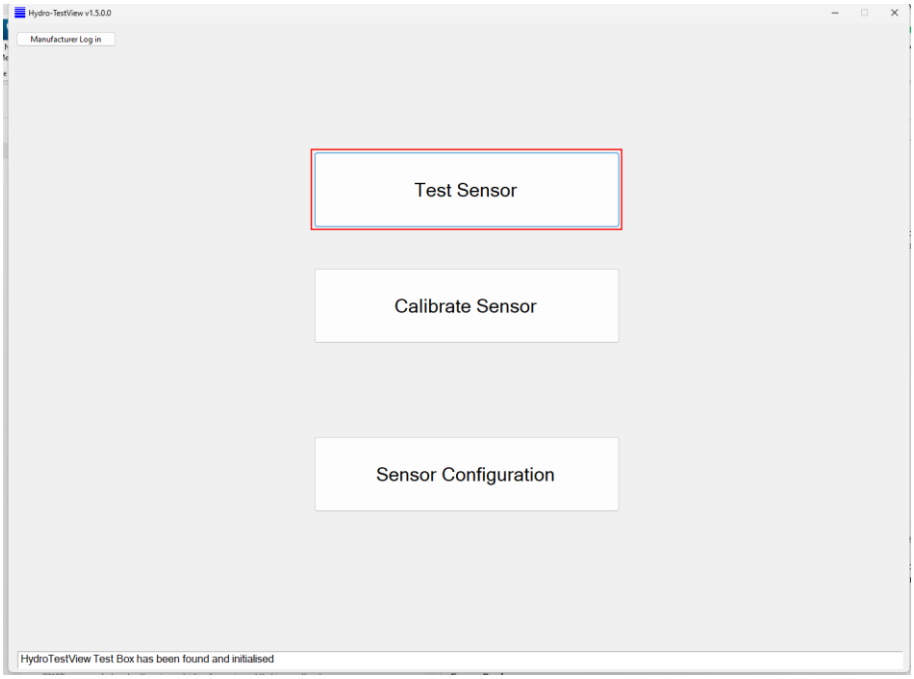


**Figure 7 - Hydro-TestView Main Menu**

A search will be performed to find the connected sensor. If no sensor is found, then “Found 0 Sensors” will be displayed in the status bar at the bottom left. Check the sensor is connected to the test box and that “Sensor 24V” indicator is red. If the ‘Sensor 24V’ indicator is off, check that the test box is connected to a 24VDC power supply.

Once the sensor has been found, ensure that the ceramic face of the sensor is clean, dry, and pointing into air.

Check that the Automatic Test Type is set to “Full” and then press “Automatic Tests” (Figure 8_. Allow the tests to proceed. This will take several minutes.

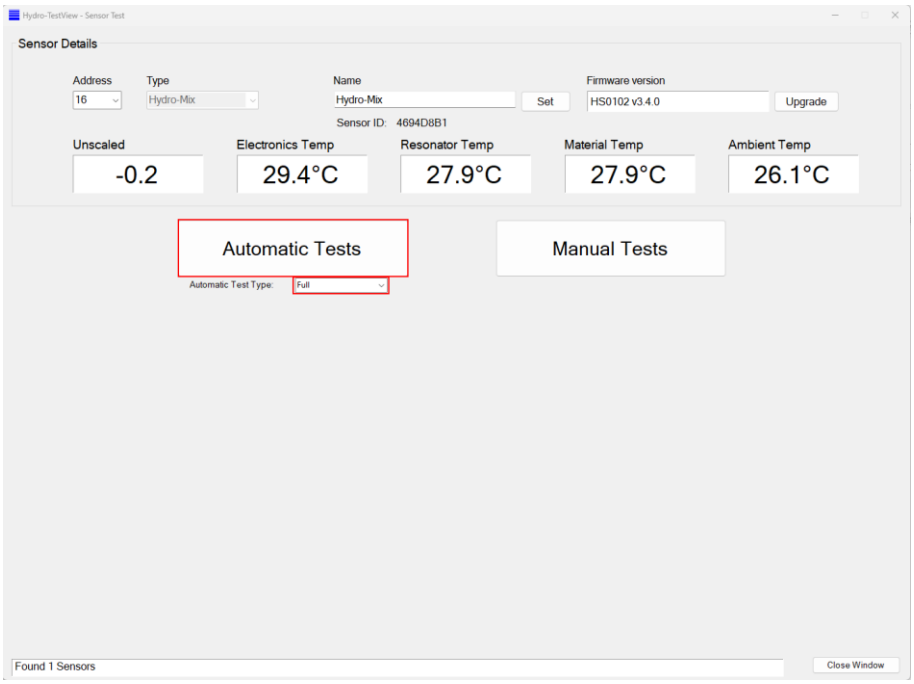


**Figure 8 - Hardware Test Page**

Once all the tests in the Test Results box are either green (passed) or red (failed) press “Record Results” (Figure 9).

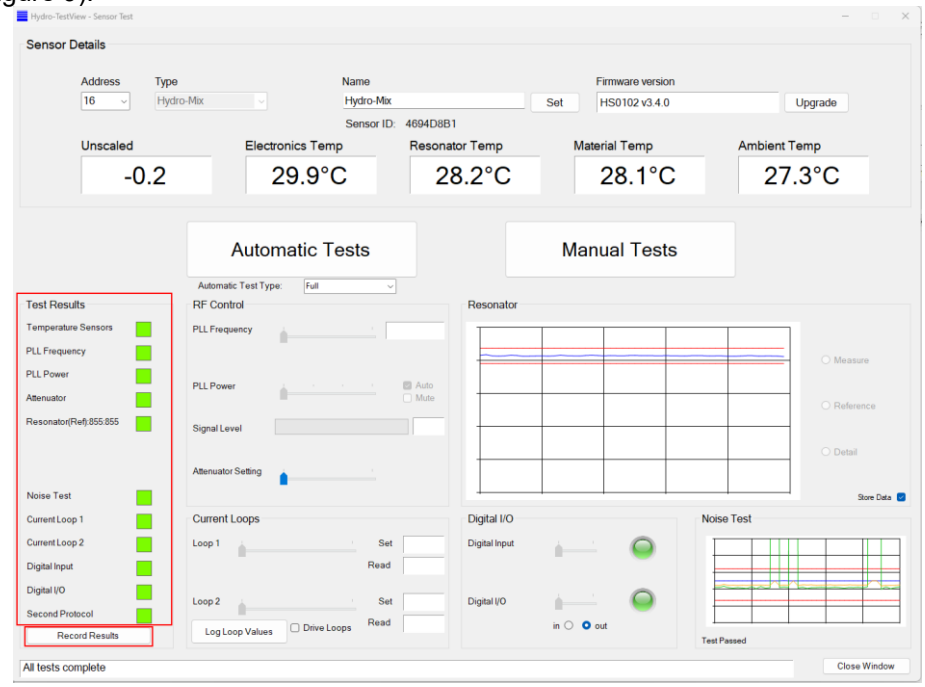


**Figure 9 - Completed Automatic Tests**

Allow the “Record Test Results” page to populate. Complete the information in the “Operator Input” group box (Figure 10).

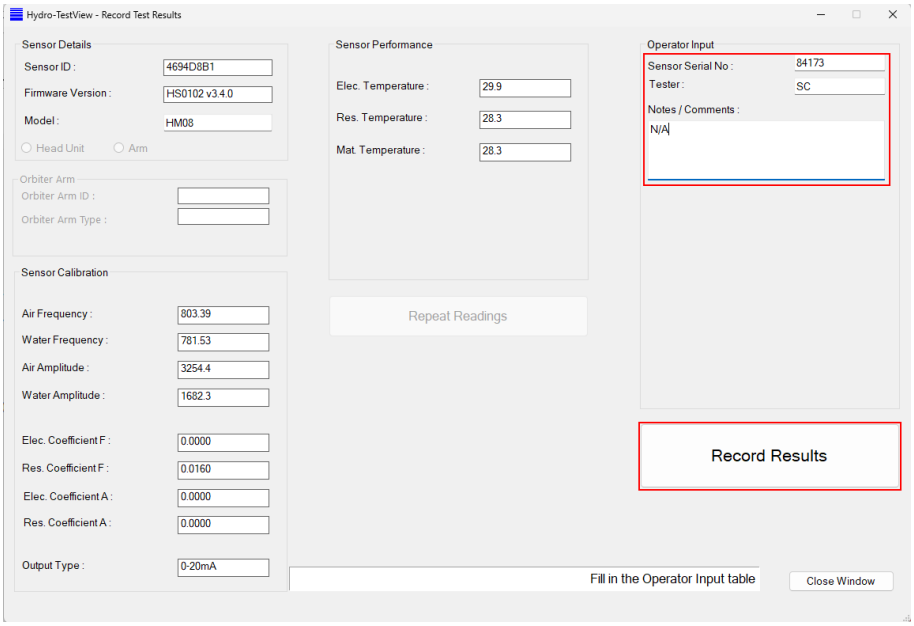


**Figure 10 - Test Results Page**

If a ‘Save As’ dialog box appears, choose a location to store a local copy of the test results and press save.

If the test results are successfully uploaded to the Hydronix Sever a success message will appear (Figure 11). If an error message appears check the internet connection.

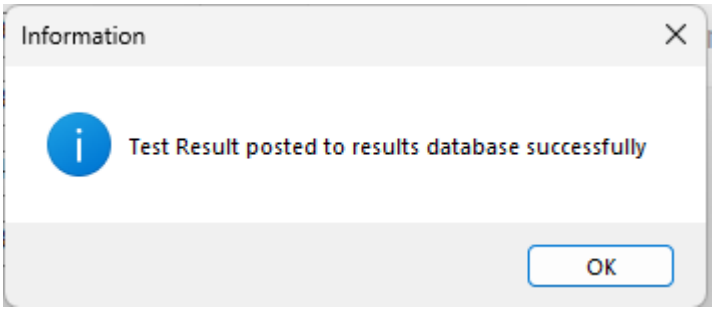


**Figure 11 - Test Results successfully uploaded**

Press ‘OK’ and close the window. To discuss results, contact support@hydronix.com, quoting the serial number of the sensor and the time and date of the test.

# 2 Manual Tests

From the Hardware Test Page press “Manual Tests.” It is now possible to perform tests manually such as setting and logging the analogue loops to specific values, and checking the state of the I/O. To Stop manual testing press “Stop Testing” (Figure 12).

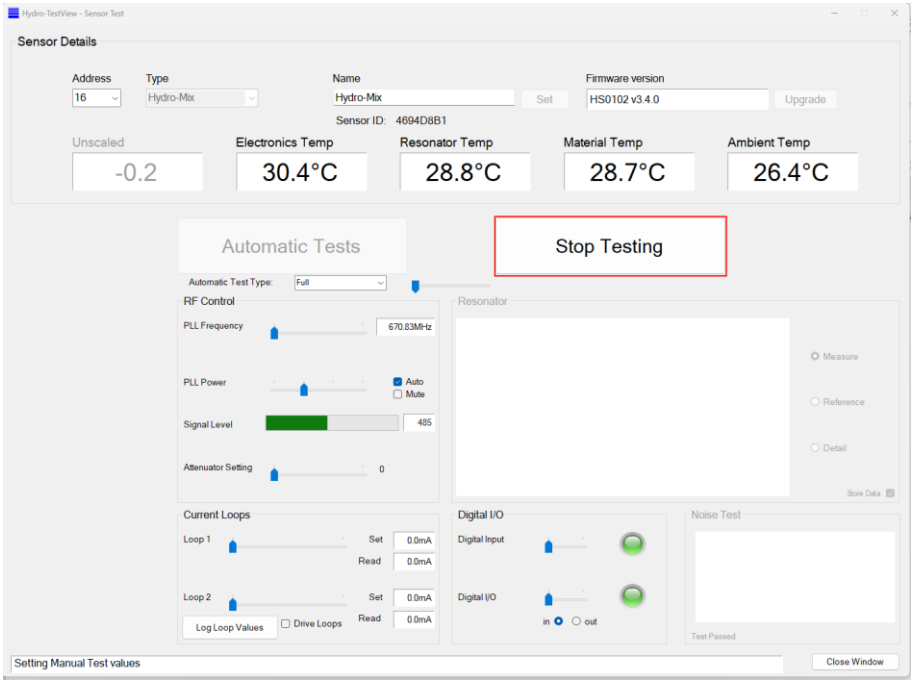


**Figure 12 - Manual Testing**

# 3 Other Functions

It is possible to view live temperatures and the current unscaled value in the ‘Sensor Details’ section at the top of the page. It is also possible to set the sensor name and upgrade the sensor Firmware.

# 4 Performing an Air/Water Calibration

If the sensor no longer reads 0 unscaled (±0.2) when clean, dry, and pointing at air or does not read close to 100 when the ceramic face is submerged in water then it is necessary to recalibrate the sensor. This can be done from the “Sensor Calibration” (Figure 13 and Figure 14) page which can be accessed by pressing “Calibrate Sensor” on the main menu page.

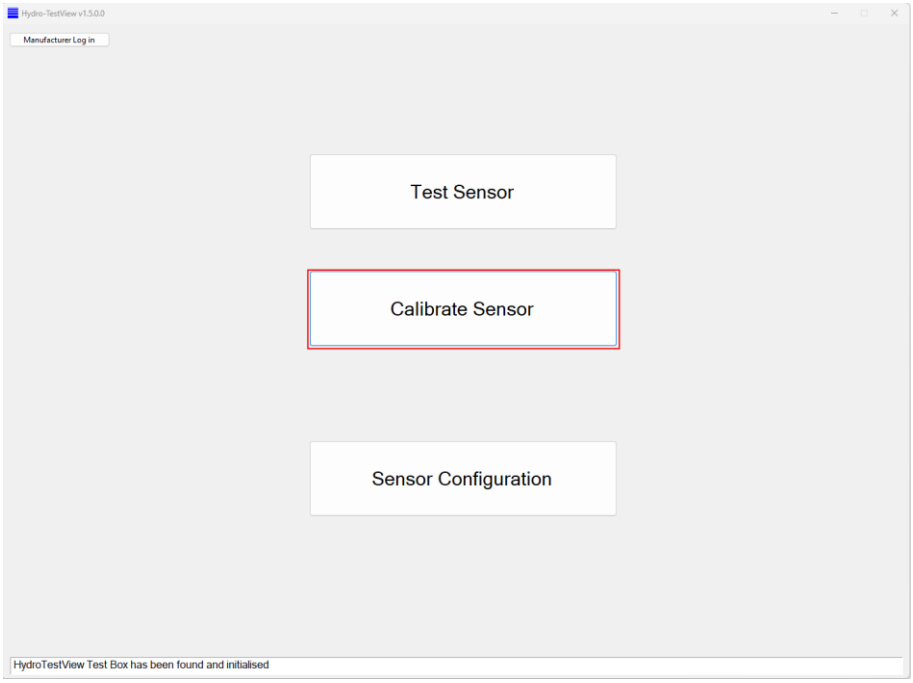


**Figure 13 - Calibrate Sensor Option**

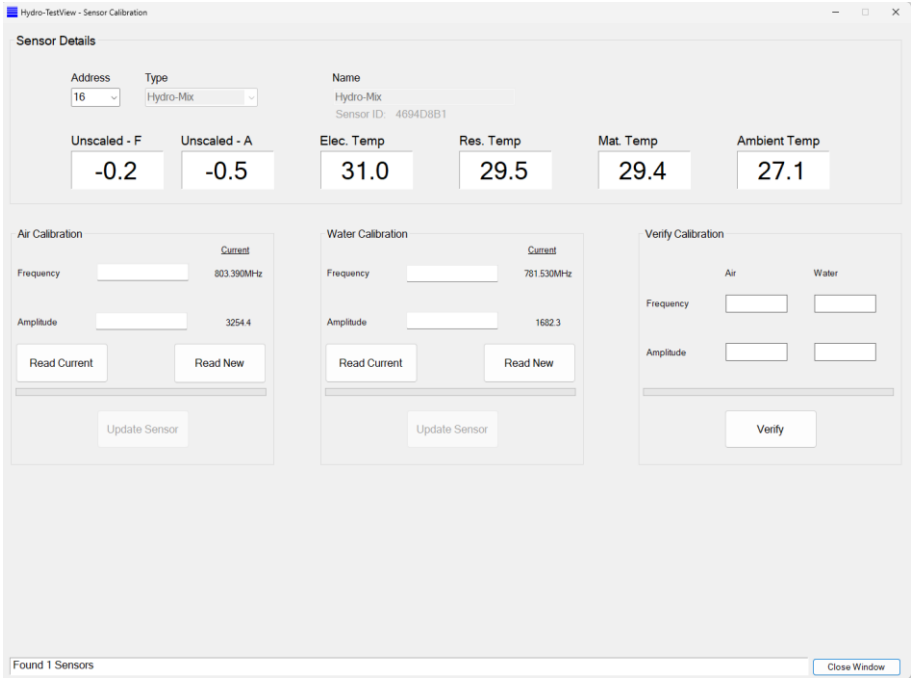


**Figure 14 - Calibrate Sensor Screen**

Ensure the sensor is clean, dry and the ceramic is pointing into air. Press “Read New” in the Air calibration box (Figure 15).

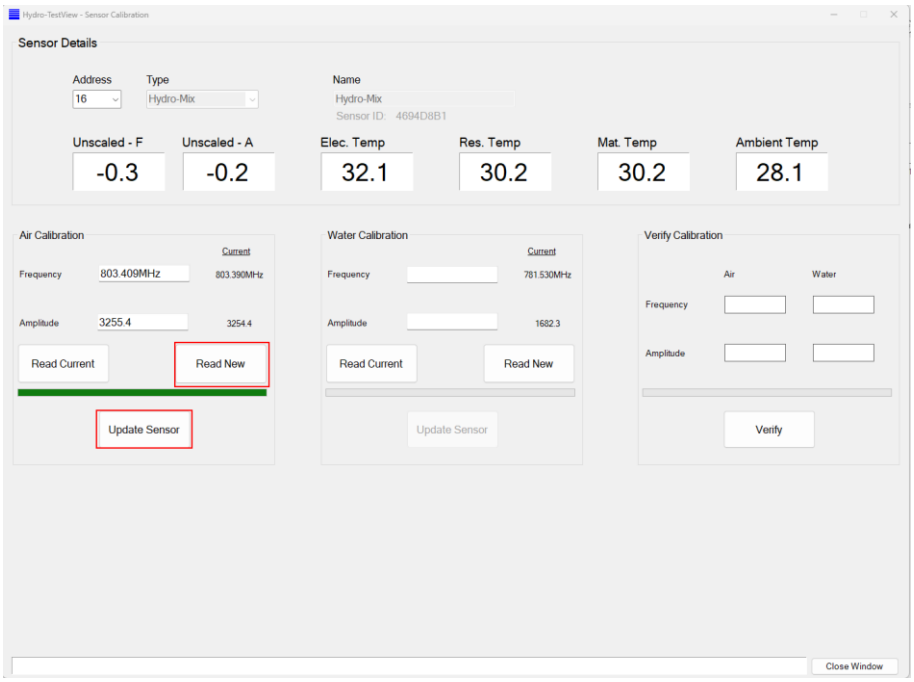


**Figure 15- Read Air Value and Update**

It is now possible to press “Update Sensor”. The “Unscaled F” Value displayed at the top will now read 0±0.1Unscaled.

Submerge the ceramic face of the sensor and ensure it is surrounded by at least 150mm of water on all sides. Use a clamp to ensure the sensor is stable and stationary (Figure 16).

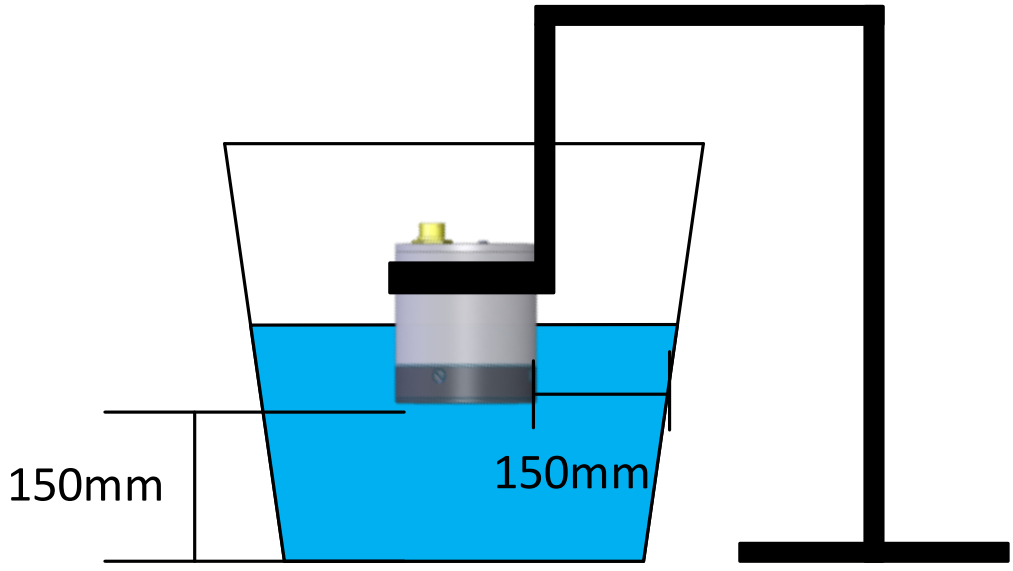


**Figure 16 - Water Calibration**

Press “Read New” in the Water Calibration box. Press “Update Sensor” (Figure 17).

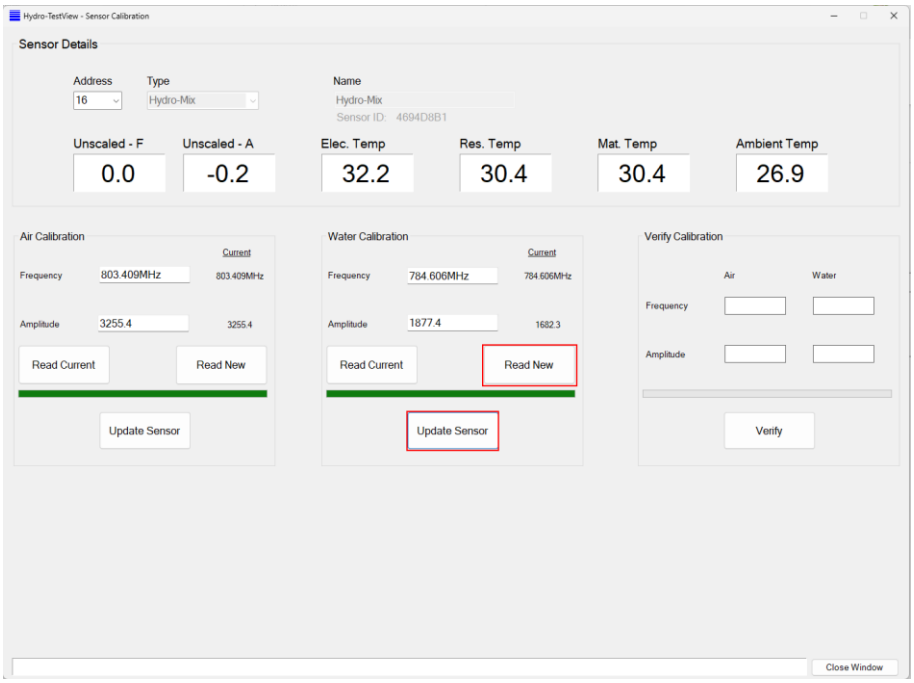


**Figure 17 - Update Water Calibration**

To verify the calibration press “Verify”. Put the sensor in a water bath as described in Figure 16. Take another Water measurement then dry the sensor thoroughly (in the case of Hydro-Mix Sensors this will involve removing the protection ring). For sensors with crevices use dry compressed air to push the water out. Follow the next prompt to take another air measurement (Figure 18).

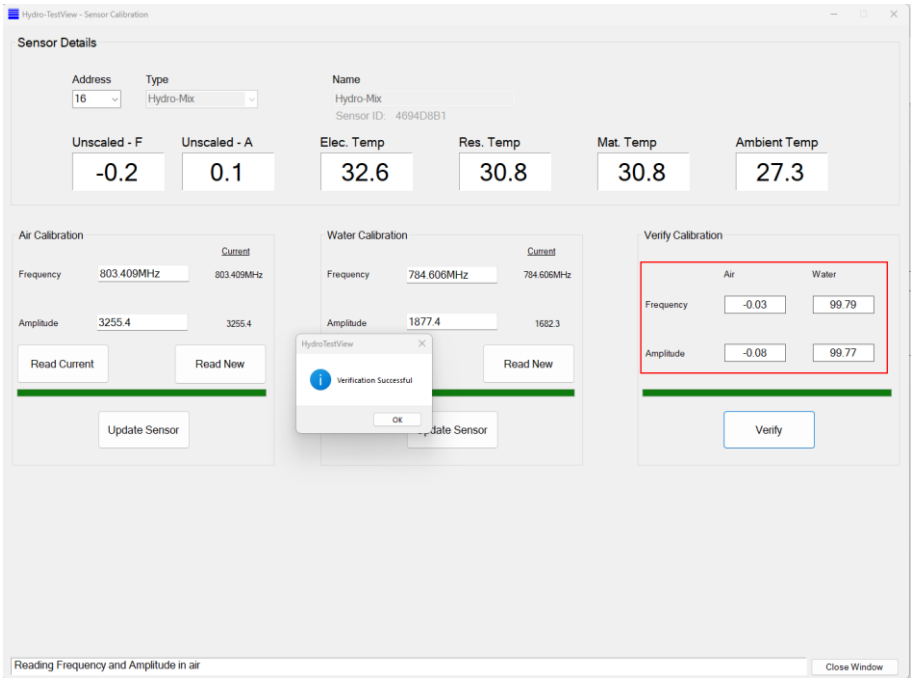


**Figure 18 – Verified Air/Water Values**

If successful, a notification will pop up stating “Verification Successful”. If Verification fails a notification will pop up stating the failure and displaying the limits of Air and Water allowed (Figure 19).

Air tolerance is based on 0 unscaled and water tolerance is based on 100 unscaled.

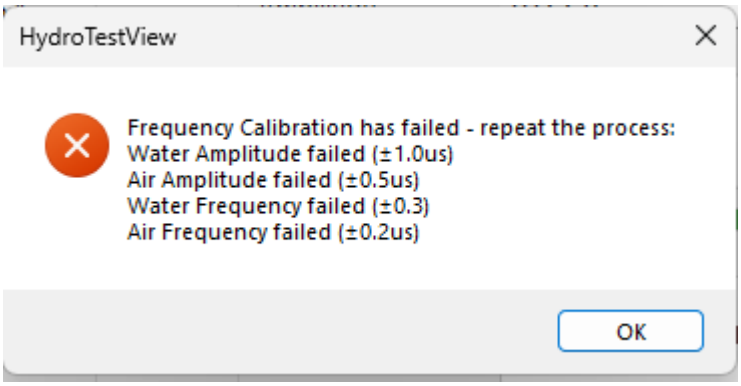


**Figure 19 - Verification failure limits**

Chapter 4 Sensor Configuration

# 1 Sensor Configuration

The sensor configuration page can be used to set the address, name, and all other configuration parameters. It is also possible to upgrade the firmware from this page.

For a full description of each configuration setting refer to the Sensor Configuration and Calibration Guide (HD0679).

Values can be Read from or written to the sensor using “Read” and “Write” in each section (Figure 20).

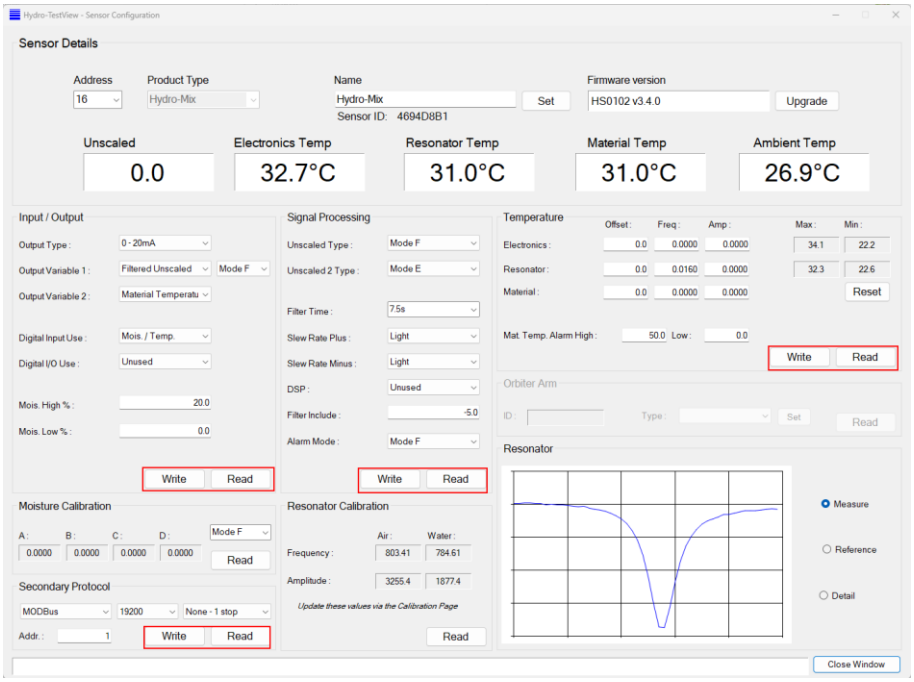


**Figure 20 - Read and Write Sensor Configuration**

# Appendix A Related Documents

## 1 Document Cross Reference

This section lists all the other documents that are referred to in this User Guide. You may find it beneficial to have a copy available when reading to this guide.

| Document Number | Title |
|---|---|
| HD0679 | Sensor Configuration and Calibration Guide |
| | |
| | |
| | |
| | |

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